**COMPLETE ON A SEPARATE SHEET OF PAPER.**

**Graph the inequality on a number line and write the solution set using both set-builder and interval notation.**

1. 
2. 

**Solve and graph the inequality. Write the solution set using both set-builder and interval notation.**

1. 
2. 
3. 
4. 

**Find the domain of the function. Put your answer in set-builder notation.**

1. 
2. 

**Find the domain of the function. Put your answer in interval notation.**

1. 
2. 

**Write and solve an inequality for the following problem.**

1. The equation  can be used to determine the profit, *P*, in dollars, of producing *x* items. How many items must be produced so the profit will be at least $5000?

**Graph and write interval notation for the compound inequality.**

1. 
2. 

**Solve the inequality and graph the solution set. Write the solution set using both set-builder and interval notation.**

1. 
2. 
3. 
4. 

**Solve each equation and write the solution set.**

1. 
2. 
3. 

**Find the requested solution.**

1. Let  Find all *x* for which 

**Solve the inequality and graph the solution set. Write the solution set using both set-builder and interval notation.**

1. 
2. 

**Find the requested solution set.**

1. Let  Find all *x* for which 

**Graph on a coordinate plane.**

1. 
2. 

**Graph the system of linear inequalities.**

1. 

**Graph the system of inequalities. Find the coordinates of the vertices.**

1. 

**Factor out a factor with a negative coefficient.**

1. 

**Factor completely.**

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 

**Solve the equation.**

1. 
2. 
3. 

**Solve.**

1. The length of a rectangular garden is 9 feet more than the width. The area of the garden is 36 square feet. Find the width of the garden.
2. If an object is thrown upward from the ground with an initial velocity of 64 ft/sec, its height after *t* seconds is given by .
   1. Find the number of seconds before the object hits the ground.
   2. How long has the object been travelling when it reaches a height of 48 ft before peaking?